Fig 1

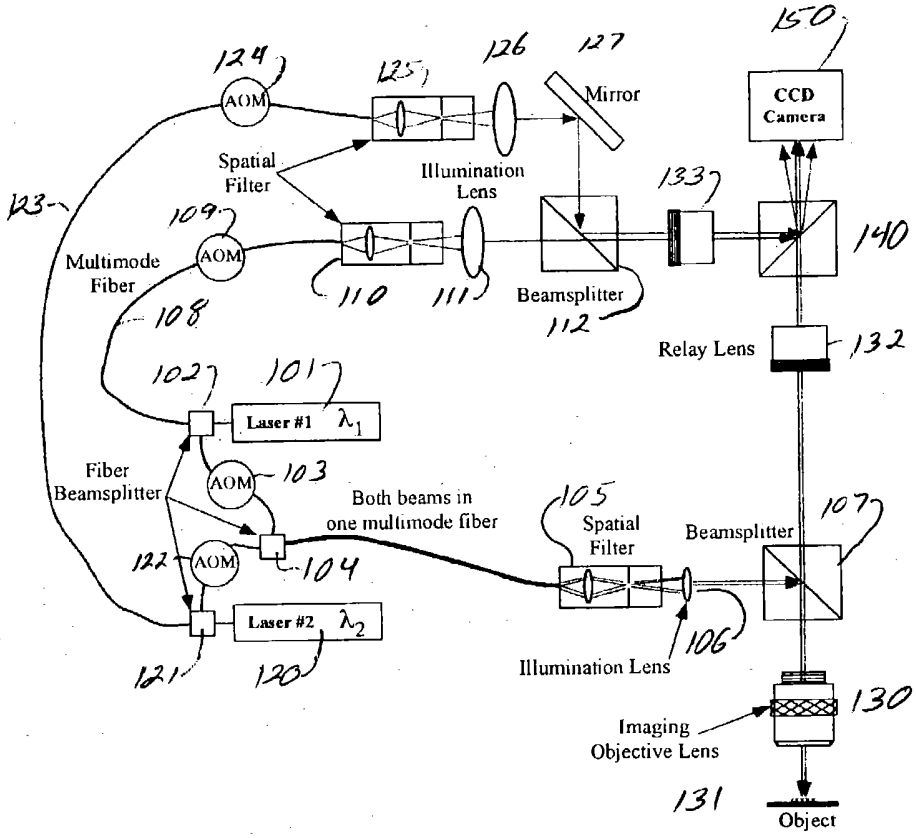
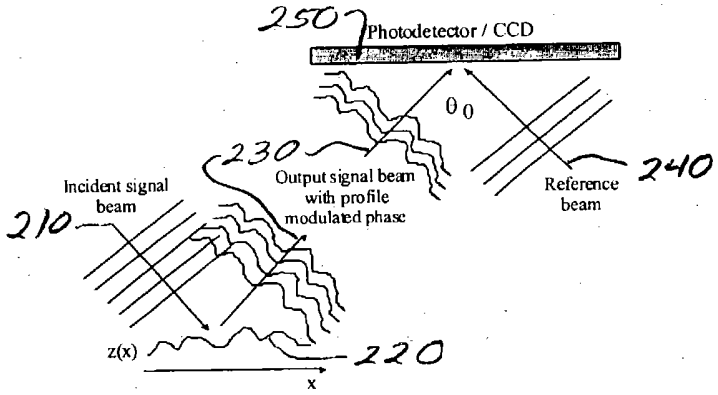

150
CCD Camera
124
AOM
125
126
127
Mirror
Spatial Filter
Illumination Lens
133
123
109
AOM
Multimode Fiber
108
110
111
Beamsplitter
112
140
Relay Lens
132
102
101
Laser #1 λ_1
Fiber Beamsplitter
AOM
103
Both beams in one multimode fiber
105
Spatial Filter
Beamsplitter
107
122
AOM
104
Laser #2 λ_2
121
120
Illumination Lens
106
130
Imaging Objective Lens
131
Object

Fig 2


250
Photodetector / CCD
θ_0
230
Output signal beam with profile modulated phase
Reference beam
240
Incident signal beam
210
z(x)
220
x

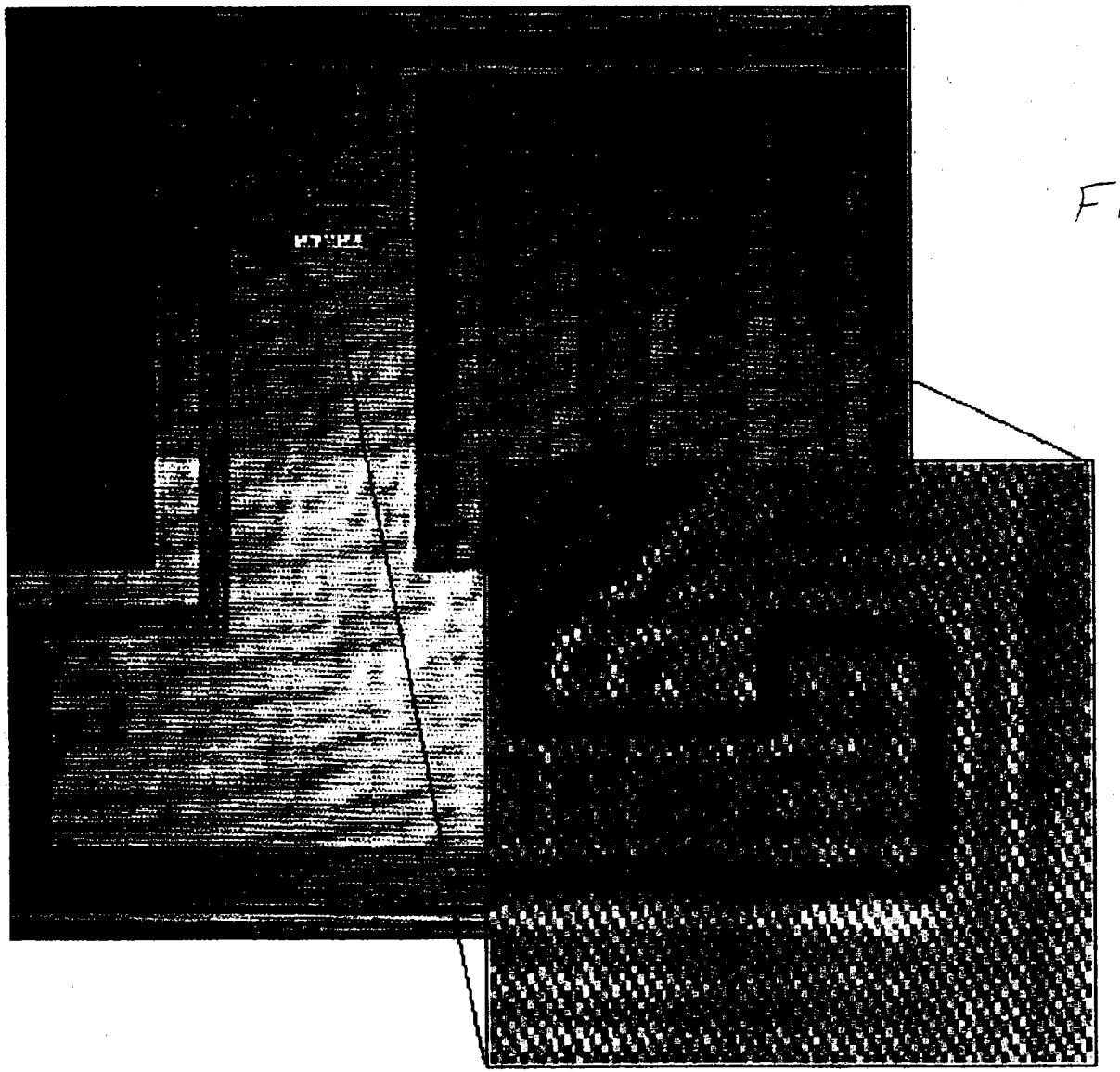


Fig 3A

Fig 3B

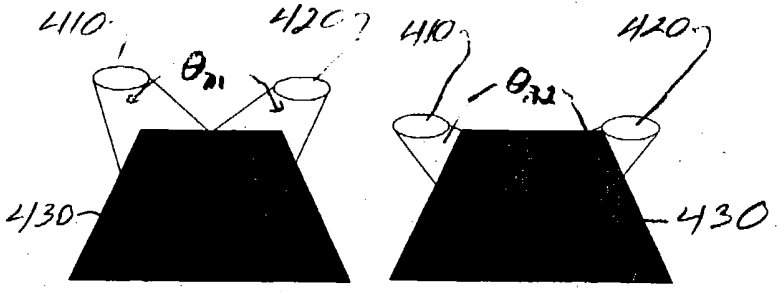


Fig 4A

Fig 4B

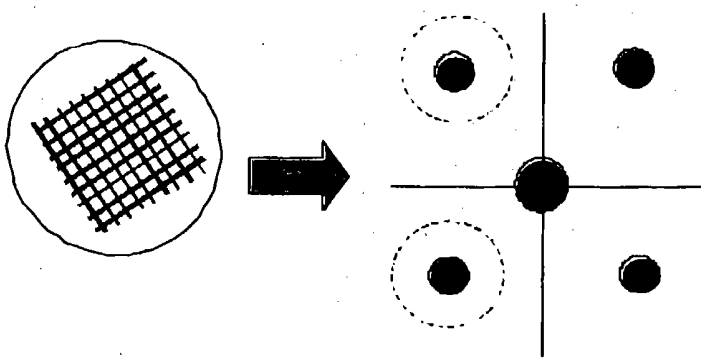


Fig 6

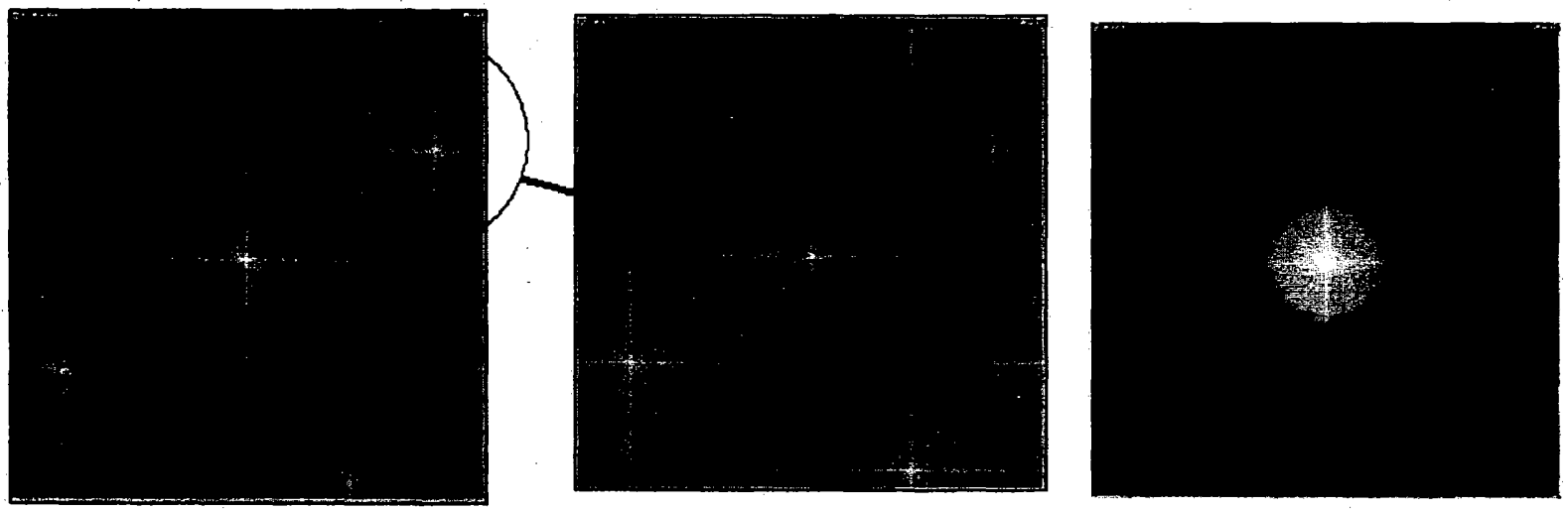
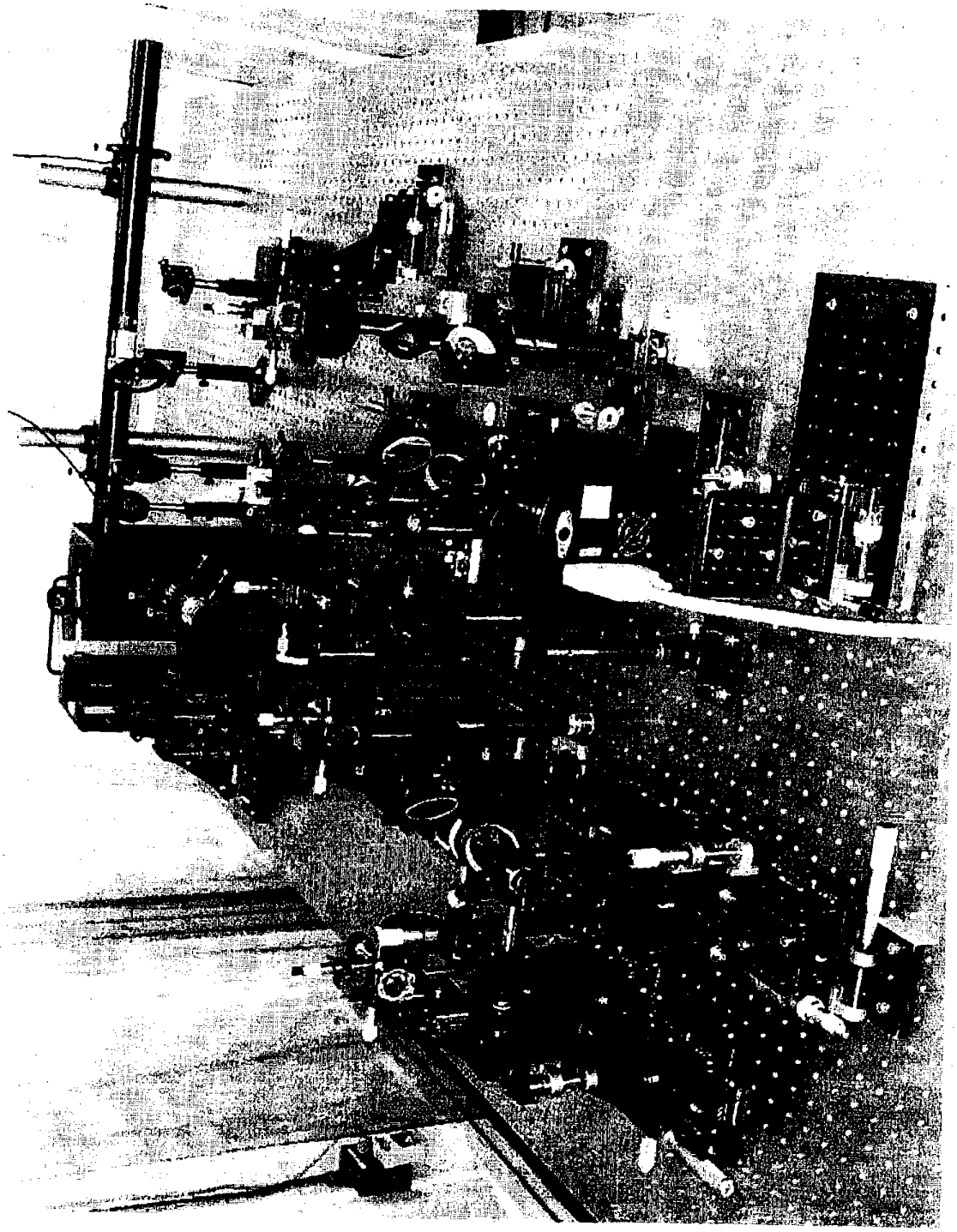


Fig 5A

Fig 5B

Fig 5C

Fig. 7



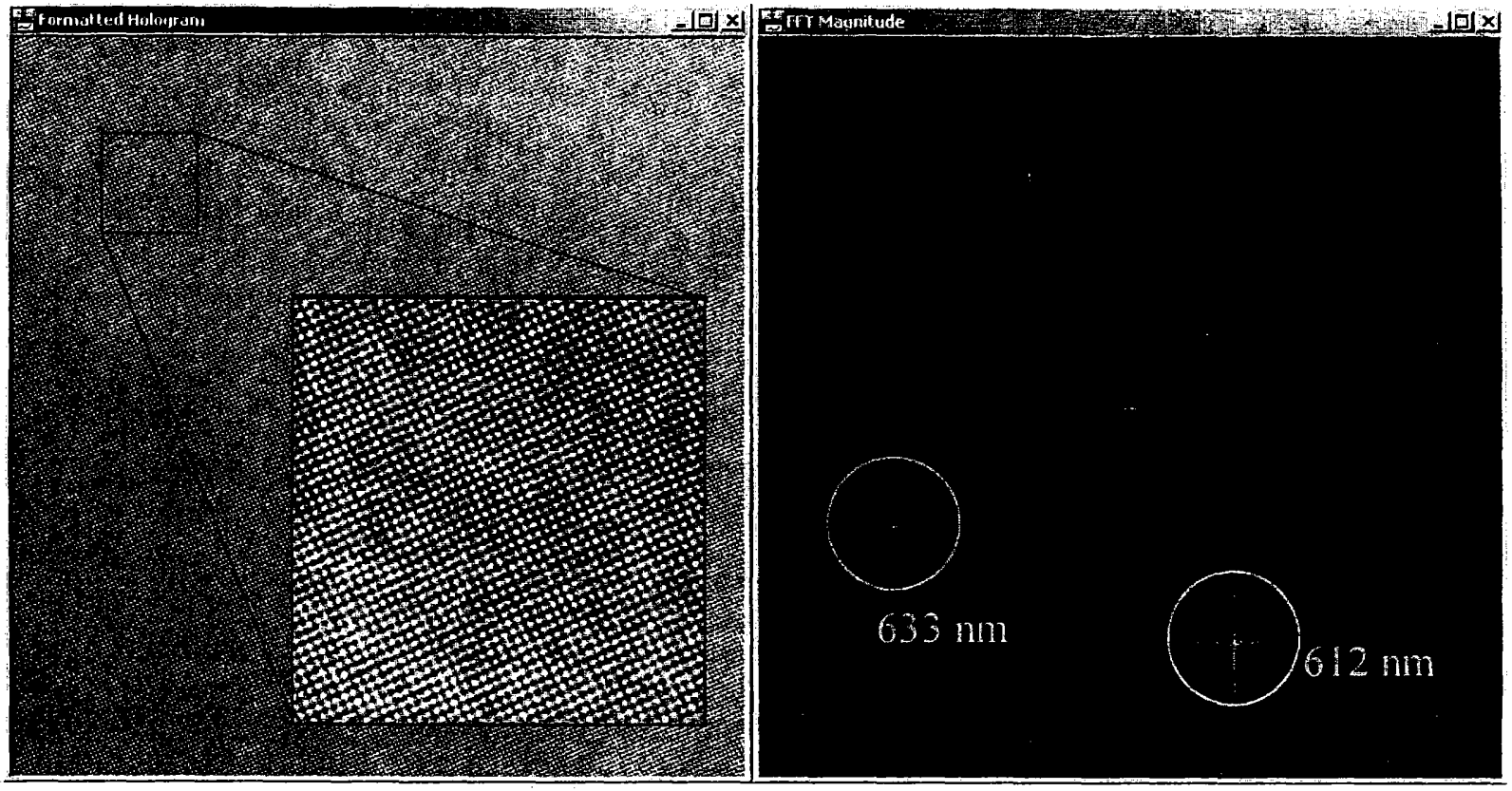


Fig 8A

Fig 8B

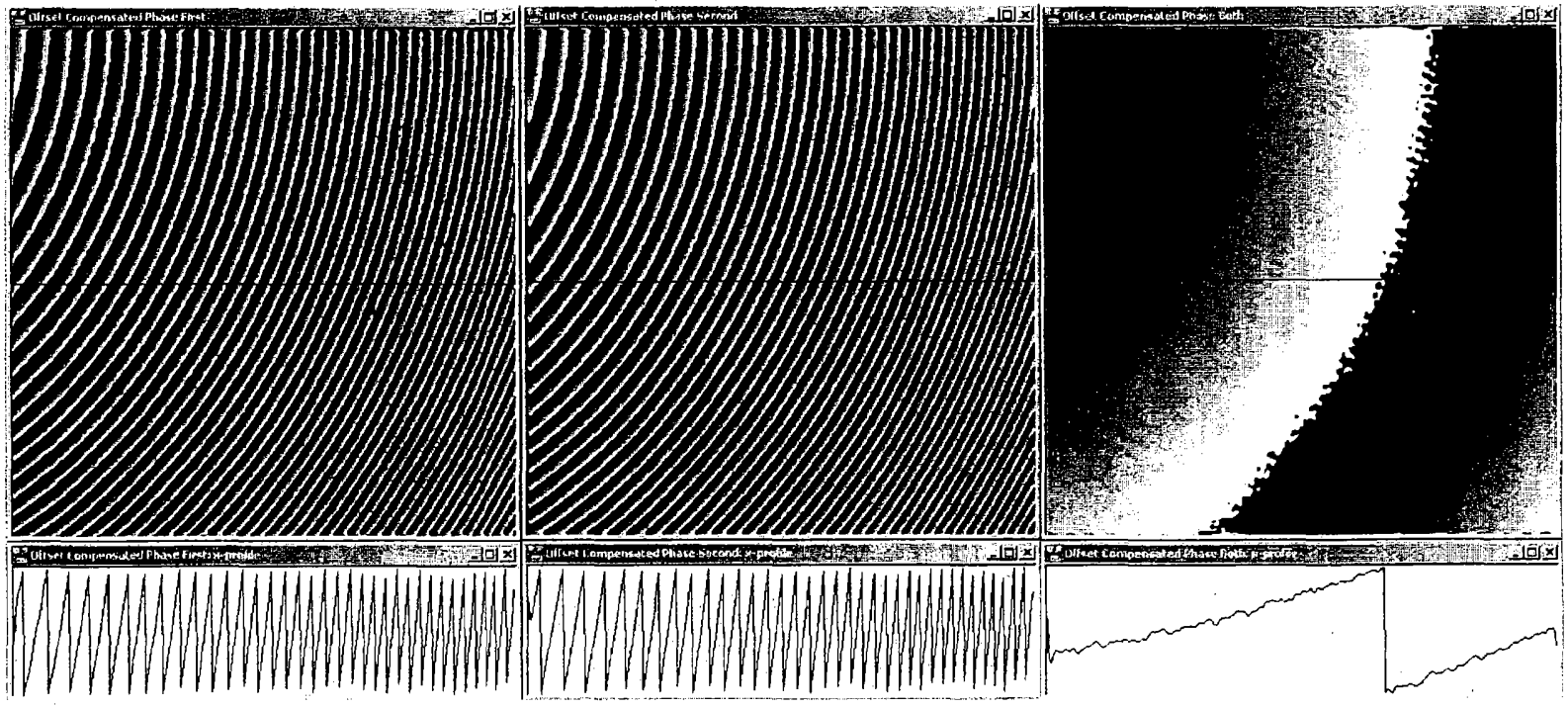


Fig 9A Fig 9B Fig 9C

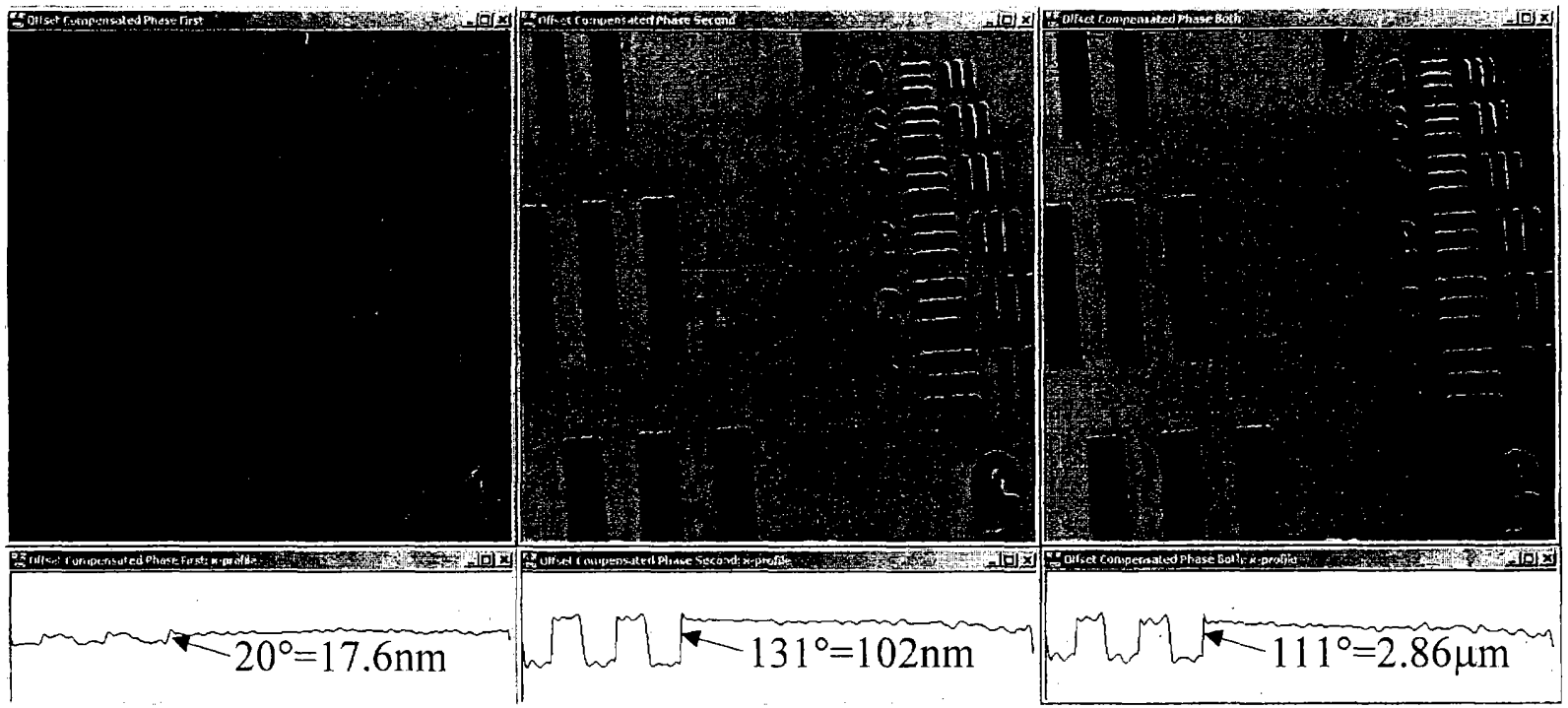
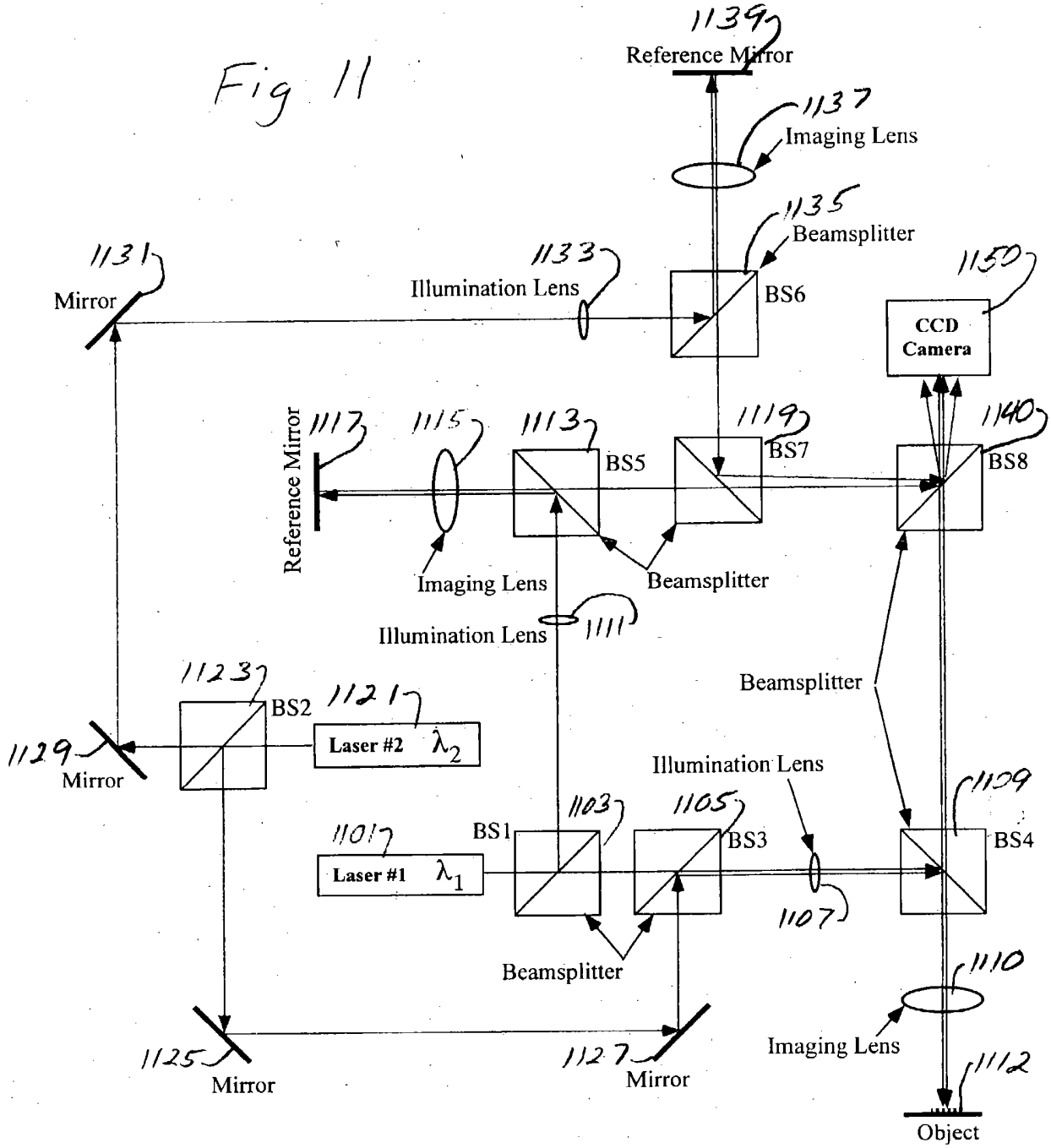


Fig 10A Fig 10B Fig 10C

Fig 11


1139
Reference Mirror
1137
Imaging Lens
1135
Beamsplitter
1131
Mirror
1133
Illumination Lens
BS6
1150
CCD Camera
1117
Reference Mirror
1115
1113
BS5
1119
BS7
1140
BS8
Imaging Lens
Beamsplitter
Illumination Lens
1111
Beamsplitter
11123
BS2
1121
Laser #2 λ_2
1129
Mirror
Illumination Lens
1109
1103
1105
11017
BS1
BS3
BS4
Laser #1 λ_1
1107
Beamsplitter
1110
Imaging Lens
1125
Mirror
1127
Mirror
1112
Object

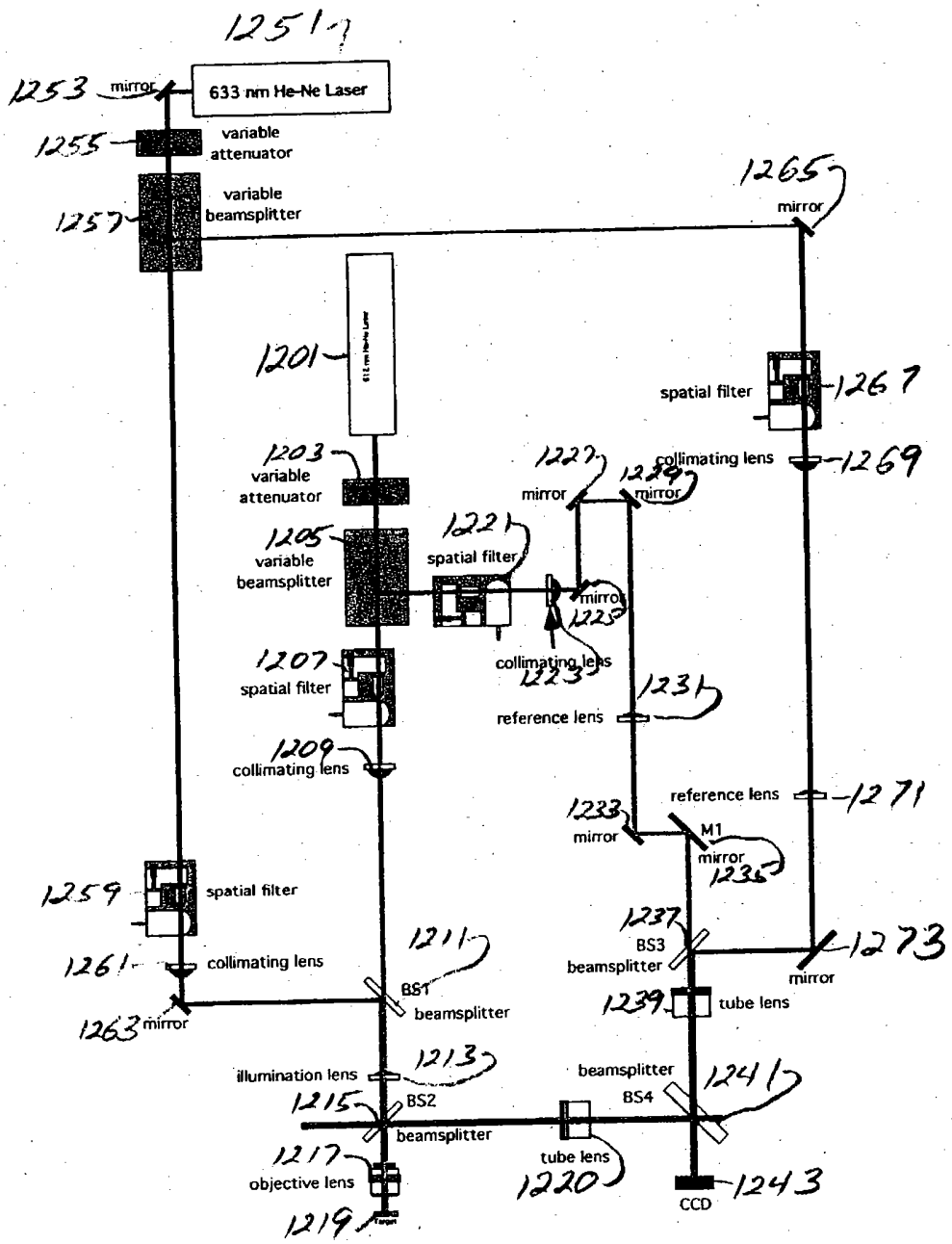

1251
1253
mirror
633 nm He-Ne Laser
1255
variable attenuator
1257
variable beamsplitter
1265
mirror
1201
1267
spatial filter
1203
variable attenuator
1227
mirror
1229
mirror
collimating lens
1269
1205
variable beamsplitter
1221
spatial filter
mirror
1225
collimating lens
1223
1207
spatial filter
1231
reference lens
1209
collimating lens
reference lens
1271
1233
mirror
M1
mirror
1235
1259
spatial filter
1237
BS3
beamsplitter
1273
mirror
1211
1261
collimating lens
BS1
beamsplitter
1239
tube lens
1263
mirror
1213
illumination lens
beamsplitter
BS4
1241
1215
BS2
beamsplitter
1217
objective lens
tube lens
1220
1243
CCD
1219

Fig 12

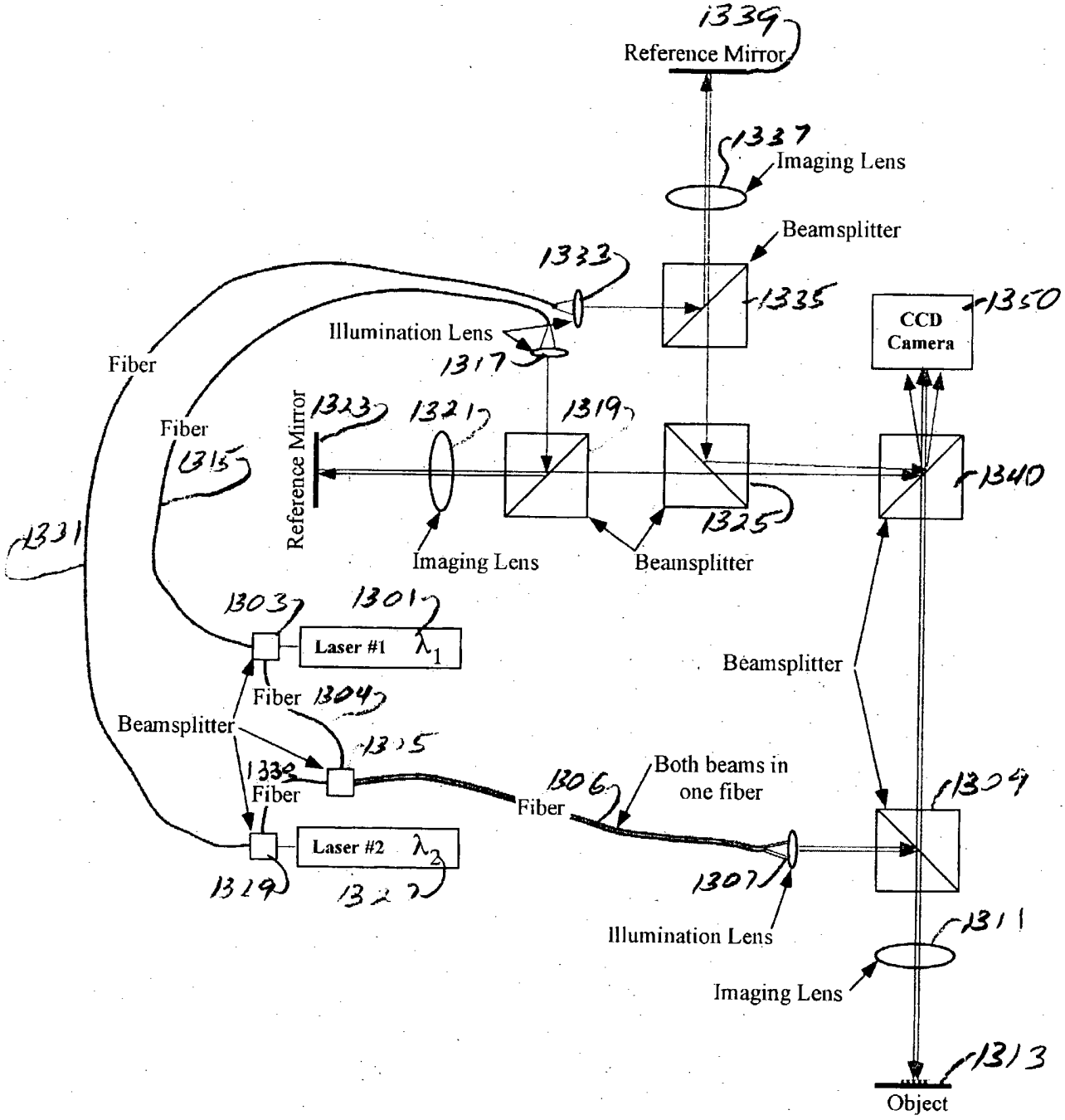

1339
Reference Mirror
1337
Imaging Lens
Beamsplitter
1333
1335
1350
CCD Camera
Illumination Lens
1317
Fiber
Fiber
1315
1323
1321
1319
Reference Mirror
1340
1331
Imaging Lens
Beamsplitter
1325
1303
1301
Laser #1 λ_1
Beamsplitter
Fiber 1304
Beamsplitter
1305
1332
Fiber
Fiber
1306
Both beams in one fiber
1309
Laser #2 λ_2
1329
1327
1307
Illumination Lens
1311
Imaging Lens
1313
Object

Fig 13

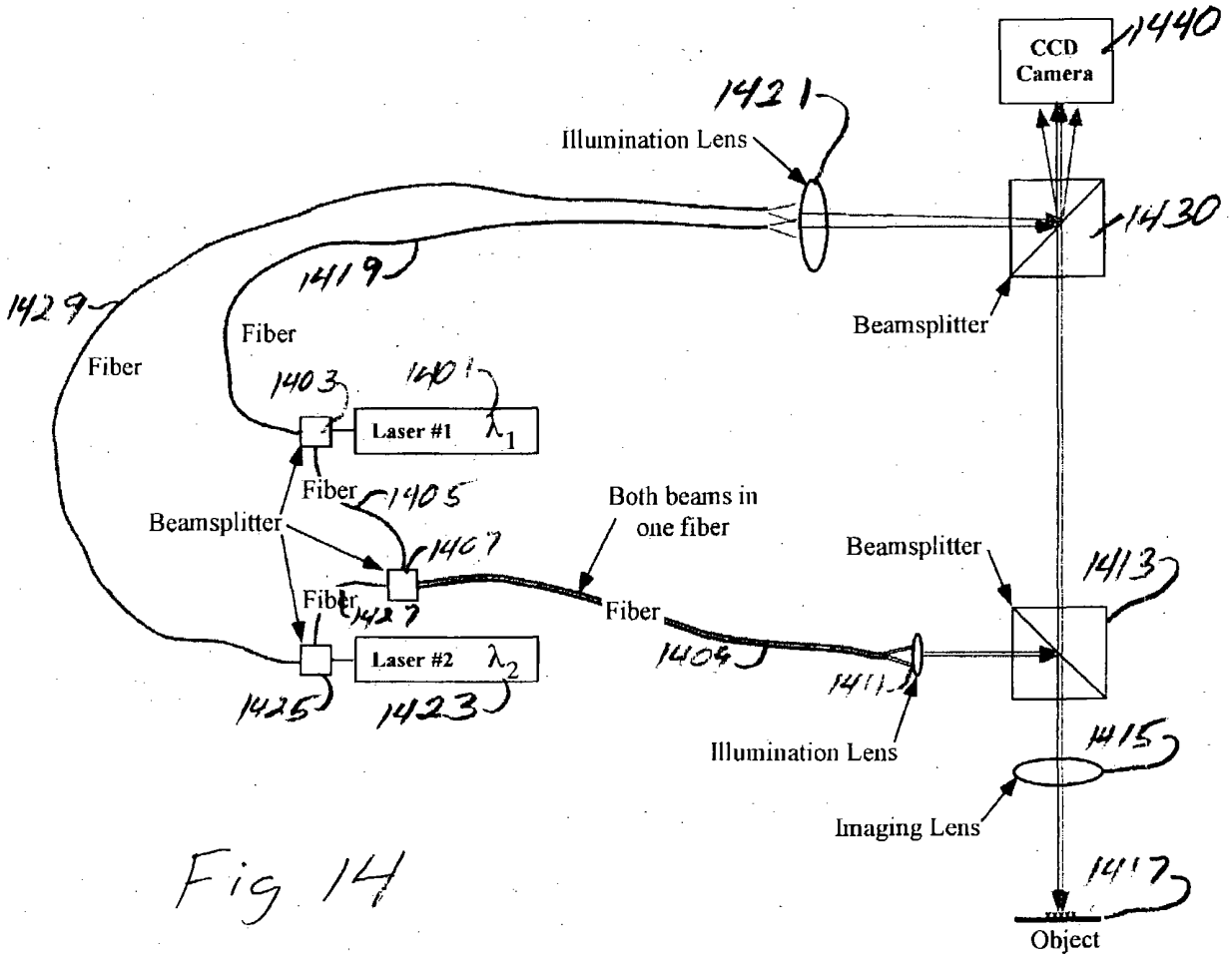

CCD Camera
1440
1421
Illumination Lens
1430
Beamsplitter
1419
1429
Fiber
Fiber
1403
1401
Laser #1 λ_1
Fiber
1405
Beamsplitter
1407
Both beams in one fiber
Beamsplitter
1413
Fiber
1427
Fiber
1404
Laser #2 λ_2
1425
1423
1411
Illumination Lens
1415
Imaging Lens
1417
Object

Fig 14

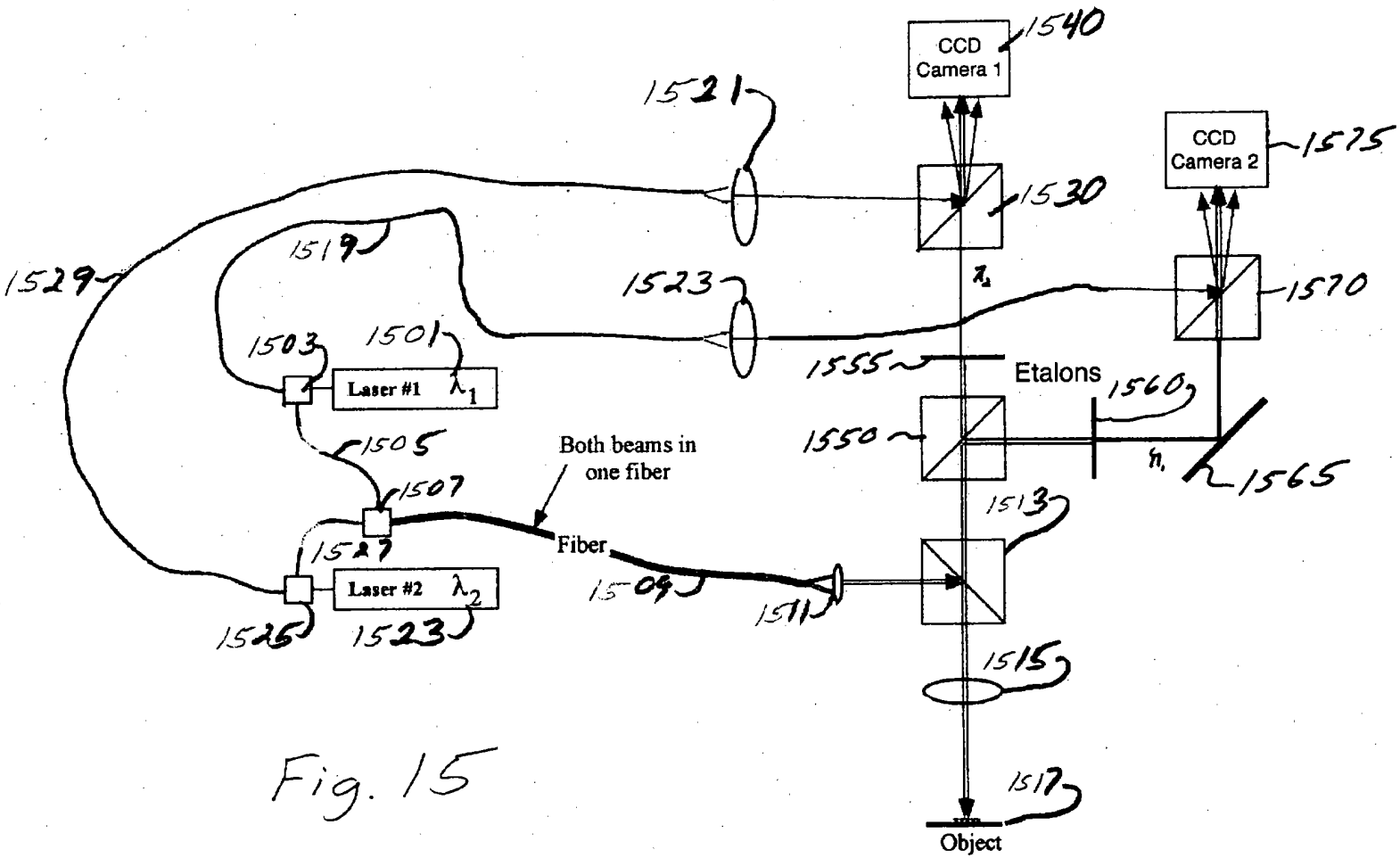

CCD Camera 1
1540
1521
CCD Camera 2
1575
1530
1529
1519
1523
1570
1503
1501
Laser #1 λ_1
1555
Etalons
1560
1550
1505
Both beams in one fiber
1565
1507
1513
Fiber
1527
Laser #2 λ_2
1509
1511
1525
1523
1515
1517
Object

Fig. 15

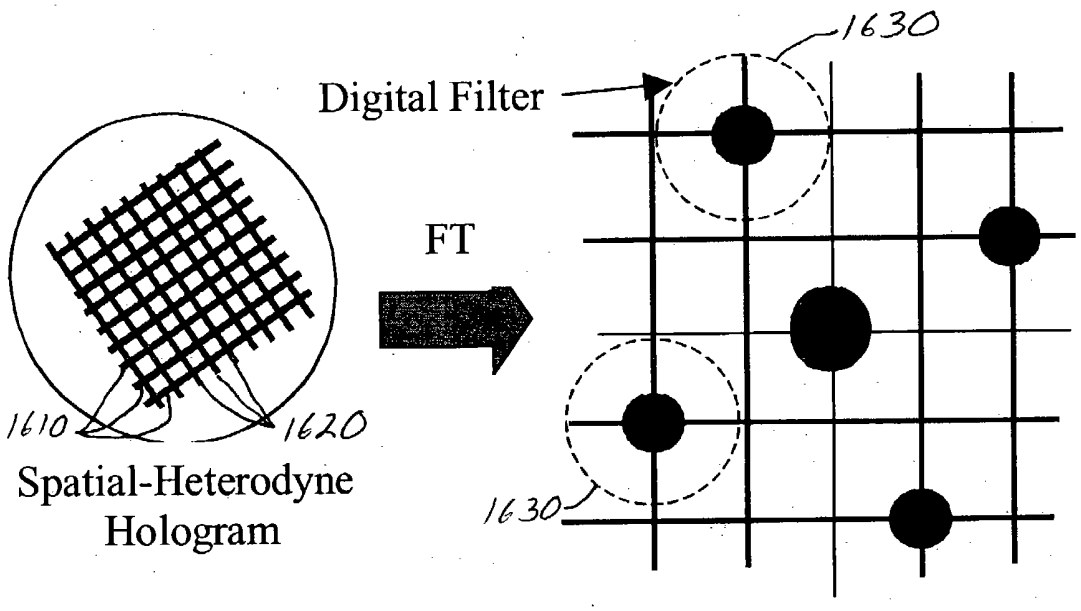


Fig 16A

Fig 16B

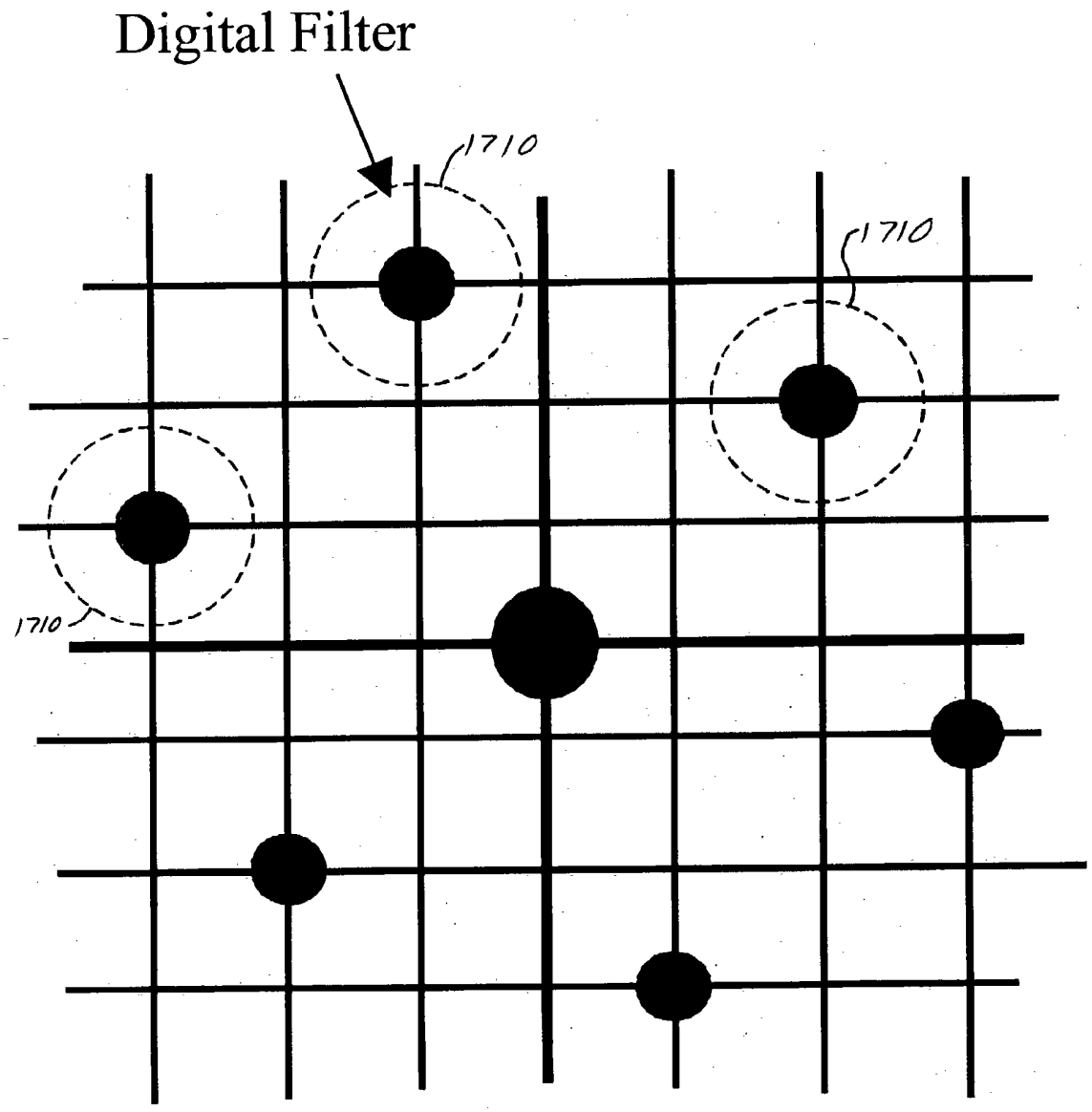


Fig 17

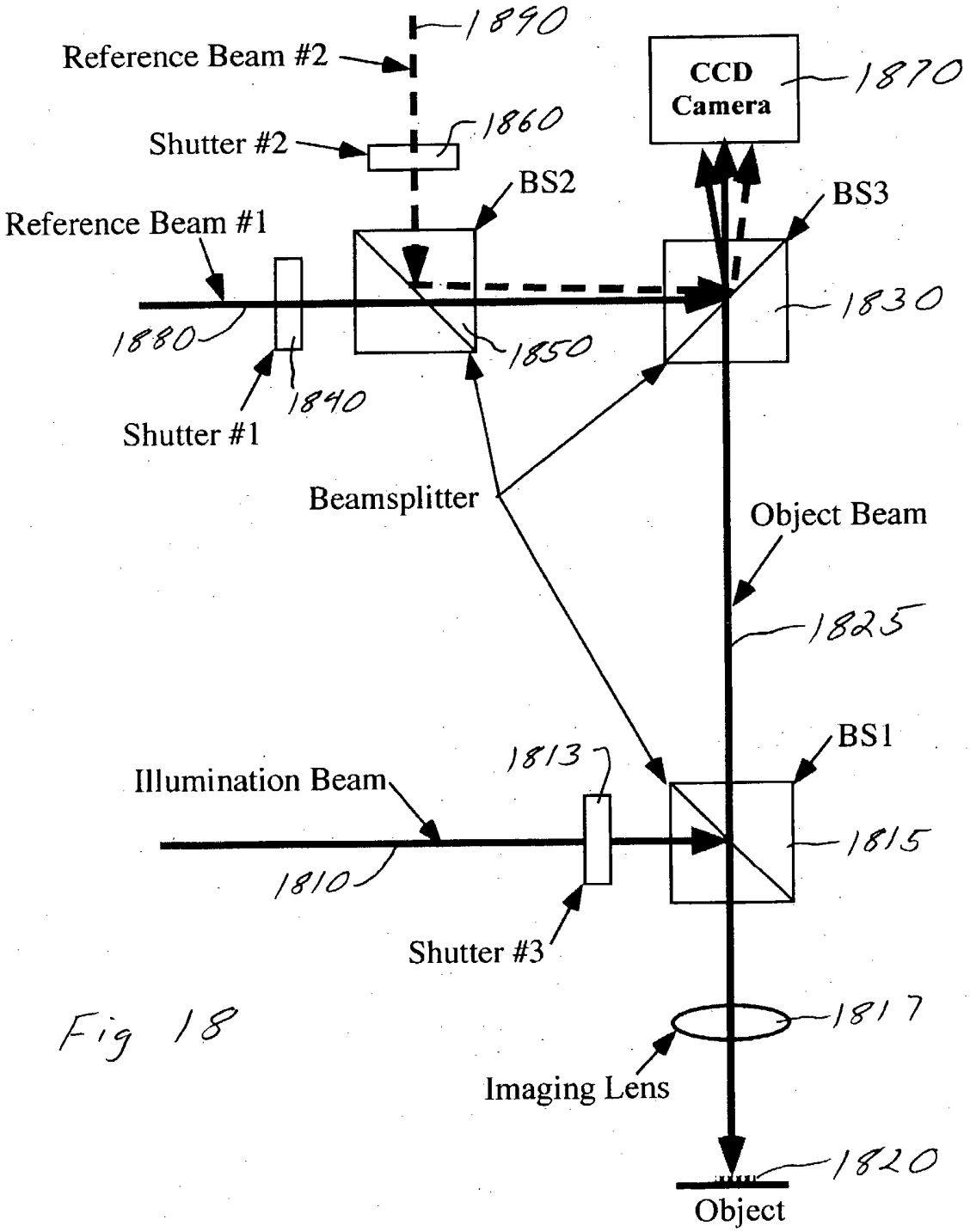

1890
Reference Beam #2
CCD Camera
1870
Shutter #2
1860
BS2
BS3
Reference Beam #1
1830
1880
1850
1840
Shutter #1
Beamsplitter
Object Beam
1825
BS1
1813
Illumination Beam
1815
1810
Shutter #3
1817
Imaging Lens
1820
Object

Fig 18

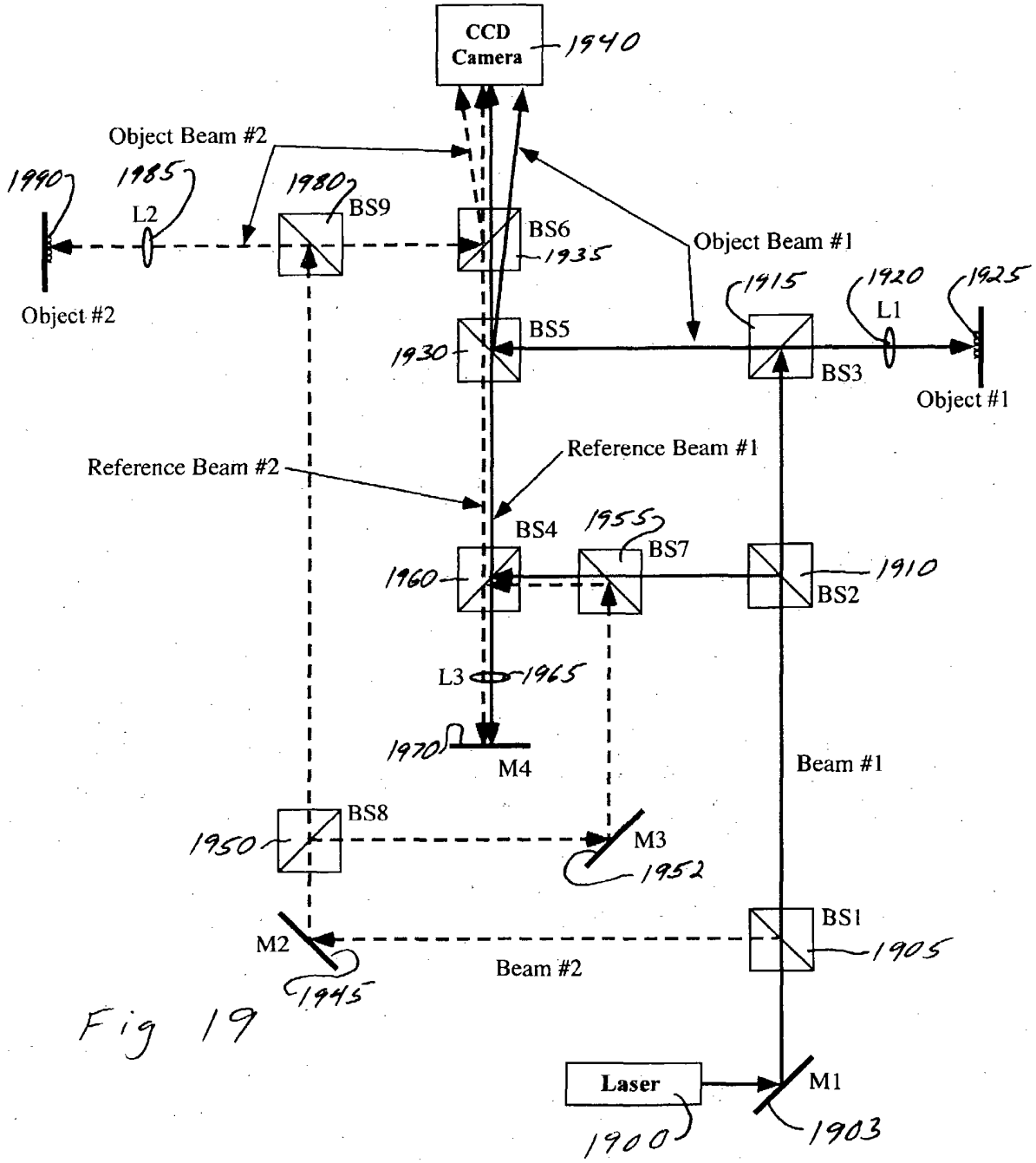

CCD Camera
1940
Object Beam #2
1990
1985
1980
L2
BS9
BS6
1935
Object Beam #1
1915
1920
1925
L1
Object #2
BS5
1930
BS3
Object #1
Reference Beam #2
Reference Beam #1
BS4
1955
BS7
1960
1910
BS2
L3
1965
1970
M4
Beam #1
BS8
1950
M3
1952
BS1
M2
1905
Beam #2
1945
Laser
M1
1900
1903

Fig 19

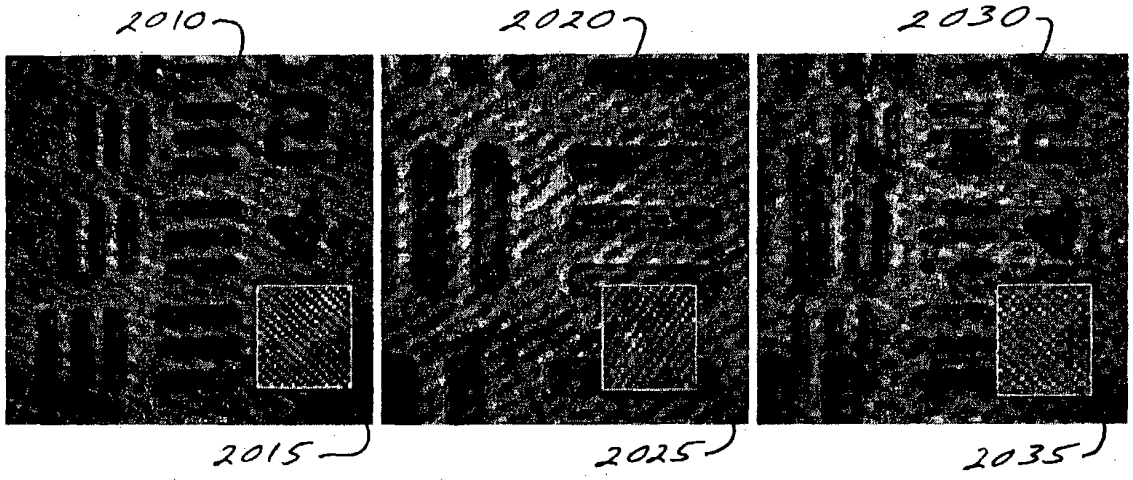


Fig 20A Fig 20B Fig 20C

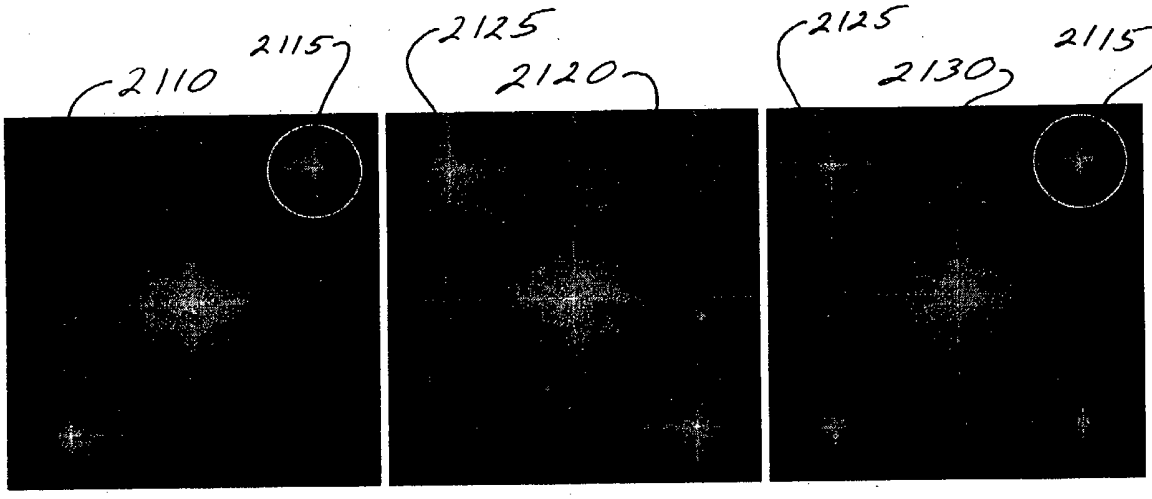


Fig 21A Fig 21B Fig 21C

Fig 22A

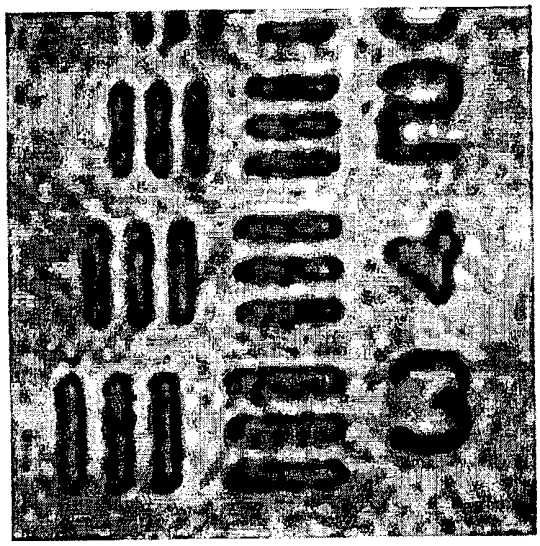
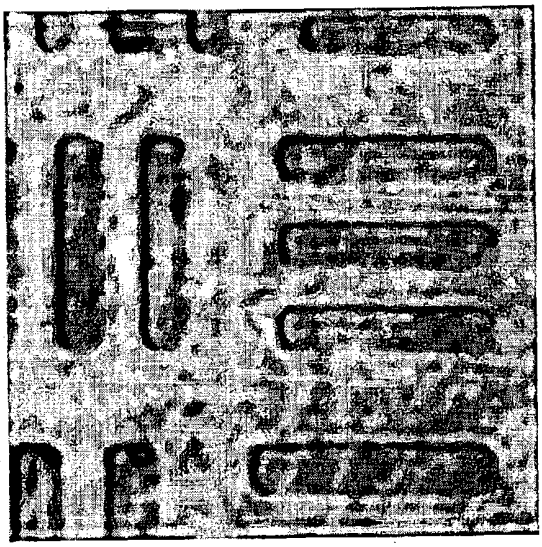


Fig 22B



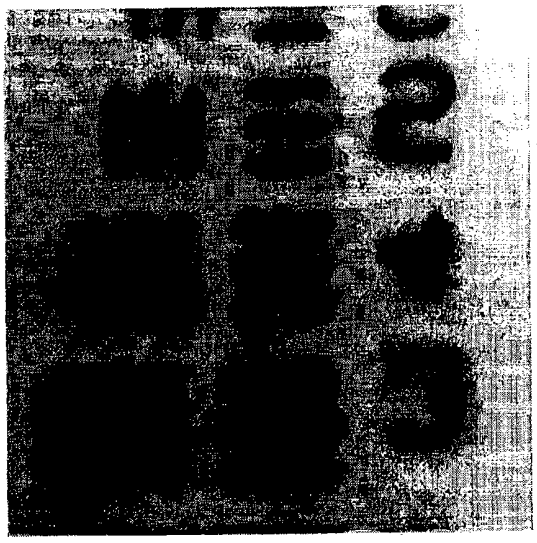


Fig 22C

Fig 22D